

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012833**Date Inspected:** 21-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

CWI Inspectors: Mr. Liu Hua Jie, Mr. Gong Liang Zhu, Mr. An Qing Xiang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Tower Bay 11

This QA Inspector observed ZPMC welder Mr. Wu Zeqiang, stencil 066481 is using flux cored metal arc process WPS-B-T-2332-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-3 and WPS-B-T-2331-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-7. This QA Inspector observed ZPMC CWI Mr. An Qing Xiang has recorded a welding current of 312 amps and 30.1 volts. This QA Inspector verified Mr. Wu Zeqiang appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ding Gui Cheng, stencil 066493 is using flux cored metal arc process WPS-B-T-2332-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-3 and WPS-B-T-2331-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-7. This QA Inspector observed ZPMC CWI Mr. An Qing Xiang has recorded a welding current of 316 amps and 29.5 volts. This QA Inspector verified Mr. Ding Gui Cheng appears to be certified to make this weld. Items observed on this date appeared to generally comply with

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applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Guilong, stencil 068919 is using flux cored metal arc process WPS-B-T-2332-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-3 and WPS-B-T-2331-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-7. This QA Inspector observed ZPMC CWI Mr. An Qing Xiang has recorded a welding current of 308 amps and 30.1 volts. This QA Inspector verified Mr. Yang Guilong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Mr. Zhuang Hua, stencil 068206 is using flux cored metal arc process WPS-B-T-2332-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-3 and WPS-B-T-2331-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-7. This QA Inspector observed ZPMC CWI Mr. An Qing Xiang has recorded a welding current of 315 amps and 31.2 volts. This QA Inspector verified Mr. Zhuang Hua appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 70022 is using flux cored metal arc process WPS-B-T-2332-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-3 and WPS-B-T-2331-TC-P4-F to make West tower Lift 4 weld WSTL4-2B/L-7. This QA Inspector observed ZPMC CWI Mr. An Qing Xiang has recorded a welding current of 315 amps and 31.2 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Tu Zhi Wu, stencil 214945 is using flux cored welding procedure WPS-B-T-2133-TC-U4b-F to make OBG segment 12BW weld DP3052-PP113-157. This QA Inspector observed a welding current of approximately 210 amps and 26.5 volts. This QA Inspector verified Mr. Tu Zhi Wu appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Hue Junrong, stencil 201215 has been using flux cored welding procedure WPS-B-T-2132-TC-U4b-F to make OBG weld SEG3005K-074. This weld is located in OBG segment 12BW. This QA Inspector observed ZPMC QC Inspector Mr. Tao Wei has recorded a welding current of 307 amps and 31.4 volts. This QA Inspector observed Ms. Hue Junrong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. He Hanbi, stencil 202122 has been using flux cored welding procedure WPS-B-T-2132-TC-U4b-F to make OBG weld SEG3005K-031. This weld is located in OBG segment 12BW. This QA Inspector observed ZPMC QC Inspector Mr. Tao Wei has recorded a welding current of 312 amps and 31.7 volts. This QA Inspector observed Mr. He Hanbi appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

Heavy Dock Tower

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This QA Inspector observed ZPMC welder Mr. Yu Chaoye, stencil 053869 is using flux cored welding procedure WPS-345-B-T-2332-TC-P4-F to make weld NSD1-SA33-D/F-5 at the base of North tower lift 1. This QA Inspector observed ZPMC CWI Mr. Gong Liang Zhu has recorded a welding current of 215 amps and 25.0 volts. This QA Inspector observed that Mr. Yu Chaoye is certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Ni Xiuba, stencil 040533 is using flux cored welding procedure WPS-345-B-T-2332-TC-P4-F to make weld NSD1-SA11-5 at the base of North tower lift 1. This QA Inspector observed ZPMC CWI Mr. Gong Liang Zhu has recorded a welding current of 216 amps and 24.8 volts. This QA Inspector observed that Mr. Ni Xiuba is certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Xu Xiuping, stencil 057244 is using flux cored welding procedure WPS-345-B-T-2332-TC-P4-F to make weld NSD1-SA76-F/H-33 at the base of North tower lift 1. This QA Inspector observed ZPMC CWI Mr. Gong Liang Zhu has recorded a welding current of 209 amps and 24.7 volts. This QA Inspector observed that Mr. Xu Xiuping is certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

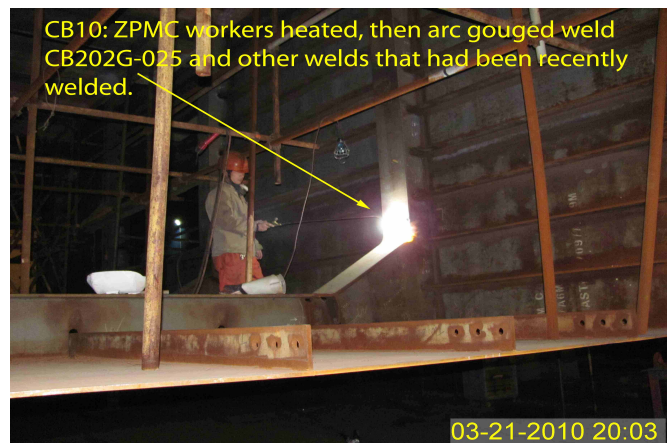
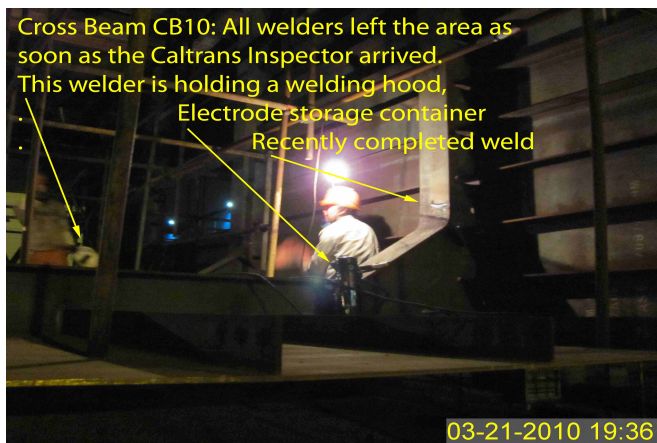
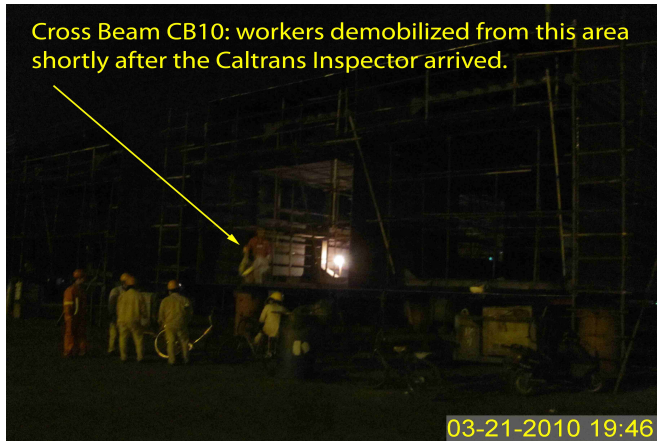
This QA Inspector observed ZPMC welder Ms. Dong Yumei stencil 054069 is using flux cored welding procedure WPS-345-B-T-2332-TC-P4-F to make weld NSD1-SA16-F/G-62 at the base of North tower lift 1. This QA Inspector observed ZPMC CWI Mr. Gong Liang Zhu has recorded a welding current of 203 amps and 24.5 volts. This QA Inspector observed that Ms. Dong Yumei is certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Yard, between Trial Assembly and Bay 13

This QA Inspector observed three ZPMC workers performing welding of various welds inside CB10. As this QA Inspector arrived at CB10, all three welders immediately left the area. This QA Inspector attempted to communicate with other ZPMC workers that were in the vicinity of CB10 and none of them appeared to speak English. This QA Inspector phoned Mr. Wang Lu (Mr. Testino) and a few minutes later he arrived and this QA Inspector requested to know who had been welding on CB10 and why they had left this location. Mr. Wang Lu asked the ZPMC job supervisor, Mr. Fang Jia Hong, for the names of the people and Mr. Wang Lu informed this QA Inspector that Mr. Fang Jia Hong refused to give him the names of the welders. Mr. Wang Lu informed this QA Inspector that Mr. Fang Jia Hong acknowledged that this welding had taken place without any ZPMC QC or CWI Inspectors performing monitoring this welding. This QA Inspector observed the following welds appeared to have been welded: CB202G-028, CB202G-026 and CB202G-025. This QA Inspector observed weld CB202G-026 did not appear to have been preheating prior to welding. See the photographs below for additional information. This QA Inspector informed Mr. Wang Lu that an incident report is being issued to document a lack of QC Inspections and that the base material had not been preheated prior to welding.

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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul
Reviewed By:	Carreon,Albert

Quality Assurance Inspector
QA Reviewer
